

## 527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

## 527 CMR 5.00: OPERATION AND MAINTENANCE OF BUILDINGS OR OTHER STRUCTURES USED AS GARAGES, SERVICE STATIONS AND THE RELATED STORAGE, KEEPING AND USE OF GASOLINE OR OTHER MOTOR FUEL

## Section

- 5.01: Scope
- 5.02: Definitions
- 5.03: Location and Construction
- 5.04: Electrical Wiring and Heating
- 5.05: Storage
- 5.06: Inventory
- 5.07: Dispensing Equipment
- 5.08: Delivery
- 5.09: Operation and Maintenance
- 5.10: General Provisions
- 5.11: Referenced Publications

5.01: Scope

527 CMR 5.00 shall apply to all service stations where flammable and combustible fuels are stored and dispensed to motor vehicles, and all buildings and structures used for the storage, parking or servicing of motor vehicles.

5.02: Definitions

For the purpose of 527 CMR 5.00, the following words shall have the meanings respectively assigned to them:

Alteration. A change or modification of a building or structure, or the service equipment thereof, that affects safety or health and is not classified as an ordinary repair.

Approved. Approved by the Marshal.

Automatic. As applied to fire protection devices, automatic refers to a device or system providing an emergency function without the necessity of human intervention and activated as a result of a predetermined temperature, or increase in level of combustion products; such as incorporated in an automatic sprinkler system, automatic fire door, etc.

Building. A structure enclosed within exterior walls or fire walls, built, erected and framed of a combination of any materials, whether portable or fixed, having a roof, to a structure for the shelter of persons, animals or property. For the purpose of this definition, "roof" shall include an awning or any similar covering, whether or not permanent in nature. The word "building" shall be construed, where the context allows, as though followed by the words "or part or parts thereof."

Bulk plant. That portion of a property where flammable or combustible liquids are received by tank vessels, pipe lines, tank car or tank vehicle, and are stored or blended in bulk for the purpose of distributing such liquids by tank vessel, pipe line, tank car or tank vehicle.

Combustible liquid. Any liquid having a flash point at or above 100°F shall be known as Class II or III liquids. Combustible liquids shall be divided into the following classifications:

Class II. Liquids having flash points at or above 100°F and below 140°F.

Class IIIA. Liquids having flash points at or above 140°F and below 200°F.

Class IIIB. Liquids having flash points at or above 200°F.

Door, fire. A door and its assembly, so constructed and assembled in place as to give protection against the passage of fire in accordance with 780 CMR.

5.02: continued

Door assembly, fire. A combination of a fire door, frame, hardware, and other accessories which together provide a specific degree of fire protection to the opening in accordance with 780 CMR.

Flammable liquid Any liquid having a flash point below 100°F and having a vapor pressure not exceeding 40 psia at 100°F. Flammable liquids shall be known as Class I liquids and shall be divided into the following classifications:

Class IA. Liquids having flash points below 73°F and having a boiling point below 100°F.

Class IB. Liquids having flash points below 73°F and having a boiling point at or above 100°F.

Class IC. Liquids having flash points at or above 73°F and below 100°F.

Garage, private. A garage for four or less passenger motor vehicles without provision for repairing or servicing such vehicles for profit.

Garage, public. A building or structure for the storage, parking, care and/or repair or painting of, one or more passenger motor vehicles, motor powered boats, or commercial motor vehicles; with or without provision for the dispensing of gasoline, oil or other similar products for the servicing of such vehicles. Public garages shall be classified according to their specific use in one of the following groups.

Group 1: A public garage in which provision is made for the care, storage, repair or painting of or fuel-dispensing to motor vehicles.

Group 2: A public garage used exclusively for passenger vehicles that will accommodate not more than nine passengers.

Gasoline. A volatile flammable liquid that will emit a flammable vapor at a temperature of less than 100°F, to be ascertained by any standard closed-cup instrument.

Height. The height of a garage in stories does not include a basement or cellar.

Listed. Equipment or materials included in a list published by an organization acceptable to the Marshal, and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that equipment or materials meet appropriate standards or have been tested and found suitable for use in a specific manner.

Marshal. The State Fire Marshal.

Motor vehicle. Any vehicle containing or using gasoline or any other petroleum product for fuel or power, excluding vehicles having fuel tanks of one gallon or less capacity.

Nationally Recognized Testing Laboratory (NRTL). An organization which tests for safety and lists, labels or accepts equipment or materials and which meets the criteria in 527 CMR 49.00(Appendix C).

Repair, ordinary. Any maintenance which does not affect structure, egress, fire protection systems, fire ratings, energy conservation provisions, plumbing, sanitary, gas, electrical or other utilities. A building permit is not required for ordinary repairs.

Self-closing. Closing automatically or mechanically after opening.

Service station. Any building or premises wherein or upon which gasoline or other motor fuel is sold at retail.

Self-service type business. As used in 527 CMR 5.00, shall mean that type of business wherein the licensed motor vehicle operator dispenses his own motor fuel.

Full self-service facility. A service station where all the pumps are self-service.

Split-island facility. A motor fuel dispensing installation where part of the facility is used as self-service and part is used as attendant service.

Service station operator. The person responsible for the service station operation or his duly authorized representative shall be a person 16 years of age or older.

## 5.02: continued

Sprinklers and sprinkler alarms. An adequate system of automatic sprinklers and sprinkler alarms shall be one that meets the generally accepted standards of engineering practice.

Structure. A combination of materials assembled at a fixed location to give support or shelter, such as a building, framework, retaining wall, tent, reviewing stand, platform, bin, fence, sign, flagpole, recreational tramway, mast for radio antenna, or the like. The word "structure" shall be construed, where the context requires, as though followed by the words, "or part or parts thereof".

Vertical Barrier. An obstacle, such as but not limited to guard posts, guard rails or pipe bollards, that prevents a motor vehicle from contacting a protected item such as but not limited to tanks or dispensing devices. The barrier must be at least 36 inches in height and be resistant to damage from the impact of a motor vehicle. Minimally, the barrier shall be able to resist a force of 12,000 pounds applied at three feet above the adjacent ground surface.

5.03: Location and Construction

(1) Design, construction, operation and use of private and public garages shall be in accordance with 780 527 CMR. Existing buildings undergoing repair, alteration, addition, and/or change in use shall comply with 780 CMR and 527 CMR.

(2) A special structure may be constructed without exterior walls provided that any open side of the structure be not less than 18 feet from any building or lot line, and that access for fire equipment be established on at least two sides of the structure. If any wall of the structure is located less than 18 feet from any building or interior lot line, a fire wall shall be constructed on that side between all floors and extended to the roof in compliance with 780 CMR, and further provided:

- (a) that any permanent right of way may be considered as a part of the 18 foot distance from any adjoining interior lot line;
- (b) that the space between the structure and the lot line is maintained free and unobstructed at all times;
- (c) that if the structure does not exceed four stories in height and if the roof is to be used for the parking of motor vehicles, it shall be constructed of noncombustible continuous concrete slab construction;
- (d) that the floor and roof shall have a continuous curb not less than six inches in height, securely anchored to the floor, located around the outside of the structure and ramps, if any; and shall also have a continuous protective railing located around the outside perimeter of the structure 42 inches high;
- (e) that no repair work is done within the building;
- (f) that the fueling of motor vehicles may be done on the floor nearest grade level provided it is performed in accordance with the pertinent provisions of 527 CMR 5.00;

## 5.03: continued

(3) A special structure consisting essentially of an elevator shaft containing a multiplicity of platforms suspended between two or more endless chains which may be moved UP or DOWN over wheels or gears, may be constructed of first class construction, or of special construction, provided:

- (a) that the structure may be constructed without exterior walls to a maximum height of 100 feet and that all structural steel is of one hour fire protected construction;
- (b) that no part of the structure shall be located nearer than 15 feet to any other building or interior lot line unless a fire wall has been constructed on that side between all floors and extending to the roof;
- (c) that any permanent right-of-way may be considered as part of the 15 foot distance from any adjoining interior lot line;
- (d) that the space between the building and the lot line is maintained free and unobstructed at all times;
- (e) that the main support chains or cables are suitably enclosed on three sides by a one hour fire protected shaft for their entire length;
- (f) that the system may be designed to operate above or below the ground for a maximum overall vertical distance of 100 feet, and that no personnel are allowed above or below the loading level whenever there are any cars on any part of the mechanism;
- (g) that if the system is installed below ground level an adequate ventilation system shall be installed to continuously remove any fumes that may accumulate in the bottom of the shaft;
- (h) that an adequate automatic sprinkler system and alarm shall be required and shall be so installed that a water curtain will develop not only around the outer wall adjacent to the fire, but also in the vertical inner space between the two rows of the lift;
- (i) that each car position shall be complete with an underpan of steel which shall be dished in such a way that any liquid dropping into the pan will flow to a sump at the end of the pan normally beyond the rear of the parked car. There shall be a drain pipe at least one inch in diameter extending from the sump to as far out from the underpan as may be practicable;
- (j) that the controls of the elevator shall be designed so that the lift may be moved in either direction for a complete revolution, and at least one set of controls shall be located in a first class fire resistive section of the structure, separated from the car loading area by a firewall complete with a fire window, so placed that the operator of the controls can see the location of the car ramp. Such enclosure shall be equipped with an exit door opposite the ramp;
- (k) that no repair or service work is done within the building;
- (l) that the fueling of motor vehicles shall be prohibited;
- (m) that the provisions of 527 CMR 5.03(5)(a) and (b) need not apply except in the enclosing of stairways which serve as the required means of egress in case of fire.

(4) When motor vehicles which are kept in a garage are loaded with merchandise which is of such a flammable nature as to be readily ignitable, such garage shall, if in the opinion of the head of the fire department it is deemed necessary, be equipped with automatic sprinklers.

(5) Garages (or portions of) located below street level:

- (a) Any portion of a building below street level hereafter to be used as a garage, lubricating pits and garages under 527 CMR 5.03(3) excepted, shall have its enclosing walls constructed in accordance with 780 CMR. The number of exits from this area shall also conform to the requirements of 780 CMR.
- (b) No portion of a building below street level, with the exception of lubricating pits, shall be used as a garage unless the portion so used is equipped with an adequate mechanical ventilating system constructed in accordance with the requirements of the BOCA Mechanical Code.

EXCEPTION: If the pit is situated or constructed in such a way as to allow a free and natural floor ventilation sufficient to remove all vapor and gases therefrom, then the mechanical ventilating system shall not be required. The exception is contingent on a written statement from a professional mechanical engineer.

## 527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

5.04: Electrical Wiring and Heating

- (1) All electrical equipment and wiring shall be of a type specified by and shall be installed in accordance with the Massachusetts Electrical Code 527 CMR 12.00.
- (2) In the case of a garage, other than a private garage, heated by a central heating unit located on or below the garage floor, such unit shall be located in a room separated from the garage by a fire partition and all openings therein shall be protected by either fire doors or fire windows. A garage may be heated by gas, oil, electric unit heater(s) and/or central heating units located in the heated area without fire partitions, provided that such equipment is located not less than eight feet above the garage floor, and in the case of gas or oil the combustion chamber of such heater shall be properly vented to the outer air. The hot air from a central heating unit shall enter the garage not less than four feet above the floor level of the garage. The return air registers of any duct distribution system connected to unit heater, central heater or warm air furnaces shall be located not less than four feet above the garage floor. No space heaters (as defined in 527 CMR 4.00) shall be permitted. Direct vent appliances (appliances that are constructed and installed so that all air for combustion is derived directly from the outside atmosphere and all flue gases are discharged to the outside atmosphere) may be installed in repair garages less than eight feet above the floor provided the bottom of the combustion chamber is not less than 18 inches above the floor and is protected from physical damage from vehicles.
- (3) In the case of a private garage, any heater or appliance unit may be located on the garage floor provided the source of ignition from combustion chambers, motors, etc., shall be located not less than six inches above the floor level. In the case of a private garage having a floor below surrounding grade the combustion chamber or ignition source or any heater or appliance unit shall be raised not less than 18 inches above the floor level. Any heater or appliance unit installed in a private garage shall be suitably protected from physical damage as directed by the head of the fire department. No space heaters (as defined in 527 CMR 4.00) shall be permitted.

5.05: Storage

- (1) Aboveground tanks, located at a bulk plant, shall not be connected by piping to a service station. Apparatus dispensing Class I fluids into fuel tanks of motor vehicles of the public shall not be located at a bulk plant unless separated by a fence or similar barrier from the area in which bulk operations are conducted.
- (2) Class I fluids shall not be stored or handled within a building having a basement or pit into which flammable vapors can travel, unless such area is provided with ventilation that will prevent accumulation of flammable vapors therein.
- (3) Each portable gasoline tank used in a garage shall not exceed 55 gallons in capacity, shall be mounted on a substantial iron or steel frame with rubber-tired wheels and shall be equipped with a suitable hose not exceeding 16 feet in length, having a shutoff valve located near the pump connection. The shut-off valve shall be kept closed when not in use.
- (4) No gasoline shall be handled outside of storage tanks or portable gasoline tanks except in approved safety cans or approved metal or plastic containers, and they shall be kept tightly closed except when in use. Containers used for the handling and storage of gasoline in garages shall have a total quantity not to exceed 14 gallons, and no such container shall have a capacity in excess of seven gallons.
- (5) All tanks used for the storage or sale of gasoline in connection with a garage or service station shall be constructed and installed and located in accordance with the provisions of 527 CMR 9.00.
- (6) No tank that has been used for the keeping or storage of gasoline shall be removed or relocated except as provided in M.G.L. c. 148, § 38A, as amended.

5.06: Inventory

All underground storage facilities except fuel oil tanks and containers connected with burning equipment shall be installed and monitored for the prevention and detection of leakage of flammable and combustible liquids in accordance with the following provisions:

- (1) Accurate daily inventory records by means of dip sticking shall be maintained and reconciled on all flammable or combustible liquid underground storage tanks for indication of possible leakage from said tanks or piping. Dipsticks shall be accurate and maintained in legible condition. The operator of the location shall be responsible to have on site an accurate dipstick calibration chart for each tank in which inventory by sticking is required. The records shall be kept on the premises or readily available for inspection by any member of the Department of Public Safety, head of the fire department or his designee, and shall include, as a minimum, records showing type of product, daily reconciliation between sales, use, receipts and inventory on hand. If there is more than one system consisting of a tank(s), serving pump(s) or dispenser(s) for any product, the reconciliation shall be maintained separately for each tank system.
- (2) Daily inventory shall be maintained for each tank system at each location by the operator. The inventory records shall be kept for a minimum of the past 12 months at the premises or readily available. The term operator shall mean the lessee or persons(s) in control of and having responsibility for the daily operation of the facility for the storage and dispensing of flammable and combustible liquids.
- (3) Inventory shall be based on the actual daily measurement and recording of tank product and water levels and the daily recording of actual sales, use, and receipts. Daily measurements will be acceptable either by gauge, gauge stick, or by readout from an automated gauging system. The inventory records shall include a daily computation of gain or loss. The mere recording of pump meter readings and product delivery receipts shall not constitute adequate inventory records.
- (4) The operator of the location shall be responsible to notify the head of the fire department of situation, and to notify the owner or person(s) in control of the facility to take action to correct any abnormal loss or gain not explainable by spillage, temperature variations or other causes. The term owner shall mean the person(s) who owns, as real property, the tank storage system used for the storage and dispensing of flammable and combustible liquids.
- (5) As a minimum the following steps shall be taken in an expeditious manner when daily inventory records indicate an abnormal loss:
  - (a) The inventory records shall be checked for error.
  - (b) If no error is apparent, an independent calculation of apparent loss shall be made by a qualified person starting from a point in time where the records indicate a no loss condition.
  - (c) If 527 CMR 5.06(5)(b) confirms no apparent loss, the readily accessible physical facilities on the premises shall be carefully inspected for evidence of leakage.
  - (d) If 527 CMR 5.06(5)(c) does not disclose a leak, the dispensers used with the particular product involved with the apparent loss shall be checked for calibration.
  - (e) If 527 CMR 5.06(5)(a) through (d) do not explain the apparent loss, the situation shall be reported promptly to the head of the fire department.
  - (f) If 527 CMR 5.06(5)(d) does not explain the loss, and if the piping system can be tested without the need for excavation, the piping system between the storage tank and dispenser(s) shall be tested in accordance with 527 CMR 9.00. If it is necessary to excavate to perform a piping test, such a test shall be conducted after a storage tank test has been performed in accordance with 527 CMR 5.06(5)(g).
  - (g) If 527 CMR 5.06(5)(f) does not disclose a leak, the storage tank(s) shall be tested for tightness by an approved test.
  - (h) If 527 CMR 5.06(5)(a) through (g) do not confirm the apparent loss, the daily inventory shall be continued with a daily independent verification by a qualified person. Additional surveillance of the facility should be engaged to insure against unauthorized removal of product.

## 527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

## 5.06: continued

(i) If any of 527 CMR 5.06(5)(a) through (h) or investigations indicate the source of the loss, the owner shall take immediate action to correct the system failure.

(6) Daily inventories need not be maintained on those days that an installation is not in operation, but not to exceed 15 days.

(7) The owner and operator will conduct an inventory verification program on a scheduled basis, at least once every year. A copy of the record of this verification program shall be kept on the premises available for inspection by any member of the Department of Public Safety or head of the fire department or his designee.

NOTE: Upon the cessation of the exercise of a license, the holder of said license shall notify the local licensing authority and head of the fire department in his area or district. The head of the fire department shall prescribe rules to eliminate hazardous conditions incident to such cessation.

5.07: Dispensing Equipment

(1) Dispensing devices shall not be installed inside a building or less than ten feet from the outside of a building unless specifically approved by the head of the fire department.

(2) Any electrically operated gasoline dispensing system within a building shall be protected by a heat activated shutoff switch, which will shut off the pump automatically when the temperature reaches 165°F. This switch shall be located within two feet of the ceiling and within ten feet of the location of the nozzle discharge.

(3) At public garages, fuel dispensing areas shall be located on the level nearest grade. Fire walls and floor/ceiling assemblies, floor construction and drainage shall be installed in accordance with 780 CMR and 248 CMR 2.00.

(4) Dispensing devices at service stations shall be so located that all parts of the vehicle being served will be on the premises of the service station.

(5) A clearly identified and easily accessible switch(es) or circuit breaker(s) shall be provided at a location remote from dispensing devices, including remote pumping systems, to shut off the power to all dispensing devices in the event of an emergency. Signs identifying the switch(es)/circuit breaker(s) shall be labeled "EMERGENCY PUMP SHUTOFF".

(6) Motor fuels shall be dispensed from tanks by means of fixed pumps designed and equipped to allow control of flow and prevent leakage or accidental discharge.

(7) Dispensing devices for motor fuels shall be listed. A control shall be provided that will permit the pump to operate only when a dispensing nozzle is removed from its bracket or normal position with respect to the dispensing device, and the switch on the dispensing device is manually activated. This control shall also stop the pump when all nozzles have been returned either to their brackets or to the normal non-dispensing position.

(8) Dispensing devices, except those attached to portable containers, shall:

(a) Be rigidly mounted.

(b) Be protected from vehicle damage by at least one of the following:

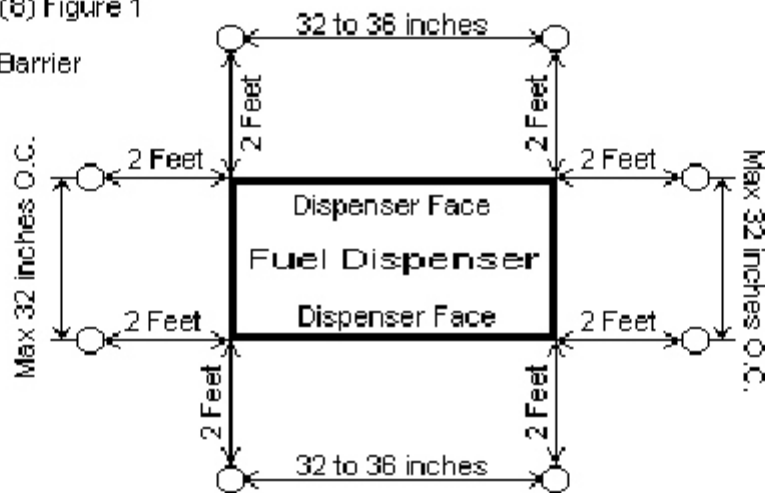
1. The dispensing device shall be mounted on a concrete platform at least six inches in height. Vertical barriers shall be installed at the ends of pumps.

2. The dispensing device shall be surrounded by vertical barriers. The barriers shall at all times prevent any contact between a vehicle and the dispensing device. Barriers must be installed at all corners of the dispenser. Each barrier must be located at least two feet off each side of each corner of the dispenser. On the side(s) of the dispensers having the dispenser face, a clear space of at least 32 inches but no more than 36 inches must be maintained for accessibility. On the sides not having a dispenser face, the barriers shall not have a spacing that exceeds 32 inches on center. See 527 CMR 5.07(8): Figure 1.

## 5.07: continued

527 CMR 5.07(8) Figure 1

○ – Vertical Barrier



(9) Dispensing devices shall be equipped with an emergency shut off valve which is rigidly anchored and designed to close automatically in the event of fire or impact. Vapor return lines shall be installed so as to not inhibit the function of the liquid shut off valve. Emergency shut off valves shall be installed in accordance with the manufacturer's instructions, be tested after installation, and every year thereafter.

(10) On multiproduct dispensing units a listed emergency breakaway hose assembly designed to retain liquid on both sides of the breakaway point shall be installed on each hose dispensing motor fuels. Hose assemblies shall be installed and maintained in accordance with the manufacturer's instructions. 527 CMR 5.07 shall apply to all those installations or replacements after September 13, 1991.

5.08: Delivery

(1) No gasoline shall be delivered to or taken from a motor vehicle while the engine thereof is running. This does not apply to tank trucks making delivery by power.

(2) No gasoline shall be delivered to the tank of any motor vehicle from a storage tank except by means of a hose equipped with a listed self-closing nozzle which shall be held open manually while making delivery or by a listed automatic shut-off nozzle, and no such delivery shall be made except by the owner/operator or a duly authorized employee, except as otherwise provided in 527 CMR 5.08(5).

(3) No gasoline shall be delivered into a portable container having a maximum capacity of seven gallons or less which is not labeled in accordance with the pertinent provisions of 527 CMR 5.10(1). Nozzles used for dispensing gasoline into a portable container shall be manually held open during the dispensing operation.

(4) Portable containers shall not be filled while located inside any vehicle.

(5) The dispensing of motor fuel by means of self-service automated dispensing systems shall be permitted, provided that the applicant for such a system has submitted complete plans and specifications of the proposed installation to the Marshal accompanied by the required examination fee as authorized in M.G.L. c. 7, § 3B and has obtained approval of such plans, and further provided that there is compliance with the following:

**FULL SELF-SERVE FACILITIES MAY BE ALLOWED PROVIDED THAT:**

- (a) The service station is under the control of the owner, operator, or duly authorized employee who shall be on duty at all times while motor fuel is being sold or dispensed.
- (b) The motor fuel shall be dispensed only by a competent licensed motor vehicle operator or by the service station attendant.



## 5.08: continued

(c) Approved signs bearing the wording "Extinguish All Smoking Materials" and "Stop Engine While Refueling" shall be conspicuously posted at both ends of the pump dispensing island visible to approaching vehicles. All approved signs required by 527 CMR 5.00 shall consist of block letters not less than two inches in height and be either red letters on a white background or white letters on a red background.

(d) The controlling mechanism console providing power to the pump motor is in constant attendance by the owner, operator or duly authorized employee at all times while motor fuel is being dispensed and is properly protected against physical damage from motor vehicles. Constant attendance shall mean that the console operator must be at the console during its operation.

(e) There is constant contact between the controlling mechanism console operator and the pump island by means of an intercommunication system which shall be maintained in proper operating condition at all times while motor fuel is being dispensed.

(f) A means is provided for the controlling mechanism console operator to observe the filling operation at each vehicle, and the dispensing of motor fuel shall be continuously observed by the console operator during the time that any of the pumps have been activated to dispense motor fuel. Unrelated business (vending areas, convenience food marts, automotive repair garages, car washes, etc.) shall be operated by others.

EXCEPTION: Facilities of 1,000 square feet or less of retail sales area and eight or less fueling positions may be operated by one attendant at the discretion of the head of the fire department. Facilities of more than 1000 square feet of retail sales area and eight or less fueling positions may be operated by one attendant during non peak business hours after review by the head of the fire department and included as an addendum to plans submitted to and approved by the Marshal as described in 527 CMR 5.08(5). Non peak hours shall be determined based upon actual customer counts taken by the owner/operator during at least a 30 day period when the facility is operating. A non peak hour shall be any 60 minute period during which 12 or less customers purchase motor fuel. Records of customer counts and motor fuel sales and receipts shall be maintained by the owner/operator and shall be made readily available upon request of the Office of the State Fire Marshal and/or head of the fire department or his designee. Approved hours of non peak operation may be amended by the Marshal based upon periodic review of the facility records by the Marshal and/or the head of the fire department or his designee or at the request of the owner operator.

NOTE: Retail sales area shall not include storage areas, offices, restrooms, etc. but shall include the area of a facility which displays goods for sale including aisles and counter space.

(g) The controlling mechanism console includes a disconnect switch which will instantly cut off all pumping power to all motor fuel pumps at the service station.

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527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

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## 5.08: continued

- (h) The controlling mechanism console, switches and related equipment are of a design and type listed for use with the dispensing devices.
- (i) Any person, firm, or corporation constructing a self-service facility or making changes or alterations, in the method of dispensing motor fuel, or to the pre-engineered fixed fire extinguishing system(s) other than normal maintenance, or to the self-service dispensing island arrangement(s) resulting in a change of hazard area protection, or environmental changes resulting in the inability of a console operator to constantly observe the fuel dispensing operation, shall notify the head of the fire department, in writing, prior to submitting plans to the Marshal.
- (j) Self-service automated motor fuel dispensing systems for which plans have been submitted subsequent to June 20, 1975, shall be equipped with an overhead fixed fire extinguishing system of a type approved by the Marshal, details of which shall be included with plans submitted to the Marshal for approval.
- (k) Hold open clips shall not be allowed on self-service dispensing nozzles.

EXCEPTION: Listed stage II vapor recovery nozzles that will only operate when the bellows assembly is compressed into the car fill pipe and will automatically shut off if the nozzle is removed from the fill pipe.

- (l) The use of automatic credit card reading devices as a means of payment at the pump island shall be allowed provided that:

1. Each sale shall be individually authorized by the self-serve attendant;
2. The automatic credit card reading device shall not be used as physical authorization for the dispensing of motor fuel; and
3. The automatic credit card reading devices are included on plans submitted to and approved by the Marshal as described in 527 CMR 5.08(5)(i).

SPLIT ISLAND FACILITIES MAY BE ALLOWED PROVIDED THAT:

- (m) There shall be installed on the full service islands an additional switch which will activate the overhead fire extinguishing system, and deactivate power to the self-service island dispensing pumps.
  - (n) Whenever the self-service dispensing mechanism is in operation, the service station operator shall be within visual range of the filling operation by either being at the controlling mechanism console as described in 527 CMR 5.08(5)(d) or at the full service pump island within 25 feet of the switch as defined in 527 CMR 5.08(5)(m).
  - (o) The split island facility meets all other applicable provisions of 527 CMR 5.08.
- (6) The provisions of 527 CMR 5.00 and 527 CMR 14.00 shall not prohibit the dispensing of motor fuel in the open from a tank vehicle to a motor vehicle or other motorized equipment located at commercial, industrial, governmental, construction sites, or manufacturing establishments not open to the public, and intended for fueling vehicles used in connection with their businesses. Such dispensing shall be permitted provided:
- (a) An inspection of the premises and operations has been made by the head of the fire department.
  - (b) A permit has been obtained by the owner/operator of the premises for such fueling operation from the head of the fire department of the city or town where the fueling is to take place. Such permit shall be granted provided the owner/operator of the fuel truck complies with 527 CMR.
  - (c) The head of the fire department may prescribe the conditions under which the fueling may be conducted.
  - (d) The tank vehicle operator or other competent person shall be in constant attendance at the dispensing nozzle during the filling operation and shall have a copy of the permit in his possession.
  - (e) The tank vehicle complies with the requirements of 527 CMR 8.00.
  - (f) The dispensing nozzle is a listed self-closing type without a hold-open clip.
  - (g) Deliveries shall be made in adequately lighted areas.
  - (h) The tank vehicle flashing lights shall be in operation while dispensing.
  - (i) Fuel expansion space shall be left in each tank being filled to prevent overflow in the event of temperature increases.

## 5.08: continued

- (j) Smoking or the use of open flames within 25 feet of the fueling operation and related equipment shall be prohibited.
- (k) Filling operations must be carried out in an outdoor area. Filling of vehicles inside of garages is prohibited.

5.09: Operation and Maintenance

- (1) Any process conducted in conjunction with public garages involving volatile flammable solvents shall be segregated or located in a detached building or structure. No gasoline or Class I flammable fluid shall be used or kept in any open receptacle for cleaning or any other purpose.
- (2) Suitable receptacles filled with nonflammable absorbent material, to be used in absorbing gasoline, waste oil or other such spills, shall be constantly kept on the floor of every garage having a net floor area of more than 1,000 square feet. Any contaminated absorbent material shall be disposed of in accordance with the requirements of 310 CMR.
- (3) All garages shall be kept clean and shall be provided with a sufficient number of self-closing metal receptacles in which all combustible waste material shall be kept until removed from the building.
- (4) A pit for greasing, lubricating, washing or wheel alignment purposes may be permitted, provided such pit is of sufficient area and so constructed as to permit ready escape therefrom in case of emergency. No such pit shall, in any case be used for repair purposes on gasoline powered vehicles.
- (5) No person shall smoke in a garage, service station, or on the premises where gasoline or other motor fuels are sold or dispensed and notices to that effect, in block letters not less than two inches in height shall be conspicuously posted at the entrance to and within the garage or on said premises, and on each pump island visible to approaching vehicles; provided, however, that smoking may be allowed in a separate room as approved by the head of the fire department.
- (6) No gasoline or other petroleum products shall be allowed to flow upon the floor of or into the drainage system of any garage.
- (7) The painting of motor vehicles, or the application of flammable undercoating or other similar operations shall not be performed in the same room where motor vehicles are repaired, kept or stored, unless such operations are performed in a booth constructed of noncombustible material and provided with a mechanical ventilating system capable of keeping such booth free of flammable vapors. The use of dropped curtains to form a spray booth is not permitted.
- (8) A fire extinguisher having a minimum classification of 4O-B:C shall be provided for every garage of 1,000 square feet of floor area and an additional fire extinguisher shall be provided for every additional 2,000 square feet of floor area. The maximum travel distance to reach such an extinguisher shall not exceed 50 feet. An extinguisher shall be located so that it will not be more than 75 feet from any pump, dispenser or fill-pipe opening. Extinguishers shall be located at the direction of the head of the fire department.
- (9) Repair of motor vehicles using torch or flame. Cutting and welding using electric arcs or oxy-fuel gas flames shall be allowed in any garage provided that:
  - (a) All flammable fluids shall be stored in a separate room from the cutting or welding site.

## 527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

## 5.09: continued

(b) All combustibles within a 35 foot radius horizontally from the work site shall be relocated from within said 35 foot radius area or shall be protected with flameproofed covers or otherwise shielded with metal or fire-resistant guards or curtains. Edges of covers at the floor shall be tight to prevent sparks from going under them.

(c) All floor drains within a 35 foot of the work site shall be covered with noncombustible material to prevent sparks or hot slag from entering them.

(d) A fully charged and operable fire extinguisher as provided in 527 CMR 5.09(8) shall be within 25 feet of the work site when any cutting and welding is being performed.

NOTE: For the purpose of 527 CMR 5.09 the work site shall be the immediate area where the cutting or welding is being performed.

5.10: General Provisions

(1) No person shall sell or offer for sale, advertise for sale, give, lease, or otherwise transfer for consideration or without consideration any container that has not been approved for the keeping, storage, use, handling, transportation or other disposition of flammable or combustible liquids. Approved containers shall include those built to U.S. DOT standards, listed and labeled by a NRTL, or approved by the State Fire Marshal.

(2) All garages and the manner of keeping, storing or using gasoline in connection therewith shall be subject to inspection by the State Fire Marshal, the head of the fire department or their designees.

(3) In the event of a leak, rupture, spill, overflow or other accident involving flammable liquids, the head of the fire department shall be notified immediately.

5.11: Referenced Publications

Documents or portions thereof that are referenced within 527 CMR 5.00 shall be considered a part of the requirements of 527 CMR 5.00. Refer to 527 CMR 49.00 for a complete listing of all documents referenced in 527 CMR.

## REGULATORY AUTHORITY

527 CMR 5.00: M.G.L. c. 148, §§ 9 and 10.

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